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SEVENTEENTH BIENNIAL REPORT

OF THE

STATE BOARD OF HEALTH

OF

CALIFORNIA,

FOR THE

FISCAL YEARS FROM JUNE 30, 1900, TO JUNE 30, 1902.

SACRAMENTO:
W. W. SHANNON, : : : : : SUPERINTENDENT STATE PRINTING.
1903.

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REPORT OF THE BOARD.

CALIFORNIA STATE BOARD OF HEALTH,
SACRAMENTO, December, 1902.

To His Excellency HENRY T. GAGE, *Governor of California:*

SIR: The Seventeenth Biennial Report of the State Board of Health is, in obedience to law, hereby submitted to you.

The public institutions of the State have received, during the last bien nial period, frequent visits from members of this Board, and the various buildings and grounds were subjected to careful sanitary inspection. The limited space allowed for the publication of this report makes it impracticable to render a detailed account of said visits; therefore, it may be said, generally speaking, that all the State institutions are conducted with extreme care for the health of the inmates. Overcrowding is the most common cause of complaint, but much of this has been remedied, especially in the State Hospitals, during your administration. Additional buildings, however, are still needed to meet the growing demand for accommodations in some of these institutions, especially at the Home for Feeble-Minded Children, and in one or two of the State Hospitals for the Insane. If the forthcoming Legislature, through committees, will inquire into these conditions there can be no doubt that the necessary relief will be provided.

The general health of the people of the State is good. With the exception of smallpox, in a modified form, we have been exempt from epidemics of contagious diseases. The statistics of the mortality in populous centers, from which our data are mainly taken, show a decreased ratio of deaths per 1,000. During the first six calendar months of the year 1900, 3,572 deaths were reported to this office from San Francisco. During the last six calendar months of the year 1901, 3,240 deaths were reported, or 16.5 per thousand for the first mentioned period, and 14.5 per thousand for the last mentioned period, notwithstanding an increased poulation during the later months.

It should be noted that the duty of ascertaining and reporting the prevalence of contagious diseases and the number of deaths in incorporated cities and towns rests solely with the local health authorities, whose further duty it is to report monthly to the State Board of Health. Whatever is lacking in completeness in the health record herein submitted is, therefore, chargeable to local health authorities, who,

in great measure, persistently neglect to report to this Board. It is to be hoped that the Legislature will devise some means whereby local health boards and health officers may be compelled to report at stated periods to the State Board of Health. Unless some legislation in this direction is had, incomplete and, to a great extent, valueless statistics will continue to be tabulated.

Recurring to the general health of the State, the only exception to a most favorable condition has been the prevalence of smallpox in many counties. While that disease has not caused a single death during the last year, so far as we have been informed, it has given much trouble and anxiety in the communities where it has prevailed. The extreme mildness of the disease has made it difficult to maintain quarantine. When called upon by local health authorities, the State Board has invariably responded and rendered such aid in suppressing the disease as our means permitted. Whatever we have been enabled to do in this and in all other sanitary precautions for the preservation of the public health has been due to your enlightened view of this important State function. By your coöperation, without interference, the efficiency of this Board has been greatly augmented.

To preserve the health of the people without undue hindrance of their domestic affairs or of their business interests is always a serious problem, but we think we may safely say it has been fully met during our incumbency as a part of your administration. Thanking you, Governor, for your uniform kindness and courtesy to us, individually and as a body, we have the honor to subscribe ourselves,

Very respectfully yours,

R. W. HILL, M.D, President.
W. P. MATHEWS, M.D., Secretary.
C. A. RUGGLES, M.D.
WINSLOW ANDERSON, M.D.
W. B. COFFEY, M.D.
C. L. GREGORY, M.D.
F. G. FAY, M.D.

STATEMENT

Showing Condition of Appropriation for Traveling, etc., State Board of Health, for the Fifty-second Fiscal Year.

CR.

By amount appropriated $1,500 00

DR.—To Warrants.

No.	Date.	In Whose Favor Drawn.	Amount.
	1900.		
439	July 20	State Board of Health	$18 50
440	20	" " " "	21 50
813	31	" " " "	38 90
1097	Aug. 2	" " " "	23 00
1331	17	" " " "	28 10
1502	23	" " " "	95 15
1545	27	" " " "	17 60
2056	Sept. 4	" " " "	109 75
2057	4	" " " "	88 30
2058	4	" " " "	19 50
2059	4	" " " "	107 30
3091	Oct. 16	" " " "	23 80
3363	31	" " " "	23 07
3364	31	" " " "	48 10
4060	Nov. 22	" " " "	40 00
4091	23	" " " "	16 00
4213	24	" " " "	46 75
4549	Dec. 1	" " " "	14 60
4918	8	" " " "	19 05
4961	11	" " " "	21 50
5062	14	" " " "	119 75
5299	29	" " " "	31 70
	1901.		
5784	Jan. 7	" " " "	48 80
6434	15	" " " "	23 40
9191	Feb. 8	" " " "	11 40
9192	8	" " " "	36 10
9193	8	" " " "	16 65
13377	Mar. 30	" " " "	25 00
14625	April 23	" " " "	9 85
15291	May 3	" " " "	17 35
15401	8	" " " "	24 32
16457	June 17	" " " "	65 65
16458	17	" " " "	13 95
16587	22	" " " "	60 50
16588	22	" " " "	12 70
16649	25	" " " "	66 50
16918	29	" " " "	60 00
687	July 26	" " " "	16 00
		To balance	19 91
			$1,500 00

STATEMENT

Showing Condition of Appropriation for Traveling, etc., State Board of Health, for the Fifty-third Fiscal Year.

CR.

By amount appropriated $1,500 00

DR.—To Warrants.

No.	Date.	In Whose Favor Drawn.	Amount.
	1901.		
1283	Aug. 6	State Board of Health	$82 35
1393	10	" " " "	76 70
1480	19	" " " "	94 60
1708	23	" " " "	80 10
2169	Sept. 4	" " " "	68 45
3225	Oct. 8	" " " "	25 85
4334	Nov. 11	" " " "	392 05
5328	Dec. 7	" " " "	113 50
	1902.		
6977	Jan. 31	" " " "	110 90
8842	April 8	" " " "	193 00
9269	23	" " " "	102 10
9978	May 15	" " " "	56 35
10693	June 4	" " " "	36 10
296	July 19	" " " "	41 05
1283	Aug. 18	" " " "	15 00
		To balance	6 90
			$1,500 00

MONTHLY CIRCULARS OF THE STATE BOARD OF HEALTH.

JULY, 1900.

Reports from 23 cities, towns, villages and sanitary districts, aggregating a population of 698,748, show a mortality of 873—a death-rate of 1.24 per thousand for July, 1900, or 14.88 per thousand per annum.

There were 120 deaths from consumption, 23 from pneumonia, 12 from bronchitis, 1 from congestion of the lungs, 15 from diarrhœa and dysentery, 5 from cholera infantum, 7 from other diseases of the stomach and bowels, 8 from diphtheria, 1 from croup, 2 from scarlatina, 5 from measles, 3 from smallpox, 9 from whooping-cough, 4 from malarial fever, 16 from typhoid fever, 16 from cerebro-spinal fever, 6 from cancer, 57 from heart diseases, 11 from alcoholism.

Reports from sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during July, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	16,000	16	2	--	--	--	--	--	--	1	--	--	--	--	--	--	2	--	--	--	--	2	--	9
Amador County	850	10	1	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	2	--	5
Anaheim and vicinity	5,000	2	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Downey and vicinity	2,500	2	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eureka and vicinity	10,000	10	3	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	6
Fresno	12,000	16	3	2	--	1	1	--	4	--	--	--	--	--	--	--	--	--	--	--	--	--	1	4
Lincoln	1,200	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Los Angeles	103,000	166	22	7	2	--	4	1	--	2	--	--	--	--	--	--	5	--	3	--	--	13	4	103
Napa	4,500	7	2	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Oakland	75,000	78	9	5	2	--	1	--	--	--	--	--	--	--	--	--	--	--	3	3	--	3	--	52
South Pasadena and vicinity	10,000	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pomona and vicinity	7,500	7	4	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Pleasanton	10,000	2	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	4	3	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sacramento	30,000	27	3	3	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2	--	2	--	16
San Bernardino	10,000	6	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
San Francisco	360,000	484	57	4	8	--	8	2	--	3	--	2	5	1	9	3	7	--	10	--	--	32	5	328
San Luis Obispo	6,000	10	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	8
Santa Barbara	6,700	8	1	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	1	--	1	--	3
Santa Cruz	5,594	9	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	1	5
Santa Monica	3,500	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Santa Rosa	10,000	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Vallejo	5,904	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Totals	698,748	873	120	23	12	1	15	5	7	8	1	2	5	3	9	4	16	--	16	6	--	57	11	552

AUGUST, 1900.

Reports from 22 cities, towns, villages, and sanitary districts, aggregating a population of 410,204, show a mortality of 379—a death-rate of .09 per thousand for August, 1900, or 10.8 per thousand per annum.

There were 66 deaths from consumption, 16 from pneumonia, 6 from bronchitis, 2 from diarrhœa and dysentery, 2 from cholera infantum, 6 from other diseases of the stomach and bowels, 6 from diphtheria, 1 from croup, 1 from measles, 2 from malarial fevers, 8 from typhoid fever, 10 from cerebro-spinal fever, 11 from cancer, 37 from heart diseases, 5 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show the absence of any form of epidemic and a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during August, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	11,900	14	1	2	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	1	--	8
Colton and vicinity	2,500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Downey and vicinity	2,500	3	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Eureka and vicinity	8,000	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	7
Fresno	12,000	12	1	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	1	1	--	1	1	5
Lincoln	1,200	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Los Angeles	103,000	131	18	7	5	--	--	--	--	3	--	--	1	--	--	1	2	--	5	--	--	18	2	74
Napa	4,500	4	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Oakland	75,000	61	13	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	2	5	--	10	--	29
Pleasanton	10,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	7	2	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	3
Sacramento	30,000	24	9	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	--	12
San Bernardino	10,000	10	3	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	--	--	5
San Luis Obispo	6,000	12	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	--	9
Santa Barbara	6,700	8	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	5
Santa Clara	12,887	25	2	2	--	--	1	--	--	--	--	--	--	--	--	--	1	--	--	2	--	2	--	15
Santa Cruz	5,594	21	5	1	--	--	1	1	--	--	--	--	--	--	--	--	--	--	1	1	--	1	1	9
Santa Monica	3,500	8	1	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	1	--	4
Santa Rosa	10,000	6	2	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	1
Stockton	17,500	16	5	--	--	--	--	--	1	--	--	--	--	--	--	1	1	--	1	--	--	2	--	5
Vallejo	5,904	8	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Wheatland	700	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Totals	410,204	379	66	16	6	--	2	2	6	6	1	--	1	--	--	2	8	--	10	11	--	37	5	200

Reports from 23 cities, towns, villages, and sanitary districts, aggregating a population of 337,185, show a mortality of 428—a death-rate of .09 per thousand for September, 1900, or 10.8 per thousand per annum.

There were 71 deaths from consumption, 16 from pneumonia, 3 from bronchitis, 2 from congestion of the lungs, 2 from diarrhœa and dysentery, 11 from cholera infantum, 4 from other diseases of the stomach and bowels, 3 from diphtheria, 1 from croup, 1 from malarial fever, 8 from typhoid fever, 8 from cerebro-spinal fever, 19 from cancer, 30 from heart diseases, and 6 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during September, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	11,900	17	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	11
Azusa and vicinity	2,000	3	1	--	--	--	--	--	-	--	--	--	--	--	--	--	--	--	--	1	--	--	--	1
Chico and vicinity	7,500	6	2	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--	--	--	2
Eureka and vicinity	10,000	12	--	--	--	--	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	1	1	7
Fresno	12,000	19	2	2	--	1	--	3	1	--	--	--	--	--	--	--	--	--	--	1	--	--	--	9
Highlands	1,800	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Lincoln	1,200	3	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1
Los Angeles	103,000	117	25	1	--	--	--	2	--	1	--	--	--	--	--	--	4	--	2	--	--	9	1	72
Napa	4,500	2	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Oakland	75,000	90	13	3	--	--	--	--	--	1	--	--	--	--	--	--	2	--	1	8	--	9	1	52
Pomona and vicinity	7,500	12	1	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	7
Pleasanton	10,000	3	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Redlands and vicinity	3,500	9	3	--	1	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2
Sacramento	30,000	40	3	2	1	--	--	--	--	--	--	--	--	--	--	--	1	--	1	2	--	2	2	26
San Bernardino	10,000	5	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2
San Luis Obispo	6,000	12	2	1	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	5
Santa Barbara	6,700	10	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	5
Santa Clara Co	2,887	27	5	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	19
Santa Cruz	5,594	11	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	2	--	--	1	7
Santa Monica	3,500	7	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	4
Stockton	20,000	12	4	--	--	--	--	--	1	--	1	--	--	--	--	--	--	--	--	--	--	4	--	2
Vallejo	5,904	10	2	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
Wheatland	700	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Totals	337,185	428	71	16	3	2	2	11	4	3	1	--	--	--	--	1	8	--	8	19	--	30	6	243

OCTOBER, 1900.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 313,398, show a mortality of 357—a death-rate of 1.13 per thousand for October, 1900, or 13.56 per thousand per annum.

There were 56 deaths from consumption, 20 from pneumonia, 1 from congestion of the lungs, 4 from diarrhœa and dysentery, 4 from cholera infantum, 7 from other diseases of the stomach and bowels, 1 from diphtheria, 2 from scarlatina, 14 from typhoid fever, 1 from intermittent fever, 4 from cerebro-spinal fever, 13 from cancer, 5 from erysipelas, 34 from heart diseases, and 4 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during October, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	11,900	19	2	3	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	1	--	11
Chico and vicinity	7,500	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2
Downey and vicinity	2,500	3	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	--	--	1
Eureka and vicinity	10,000	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	4
Lincoln	1,200	2	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Los Angeles	103,000	135	32	5	--	--	2	--	--	--	--	--	--	--	--	--	4	--	2	--	--	15	3	72
Mariposa	1,500	2	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
McCloud	600	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Oakland	75,000	89	10	6	--	--	2	--	--	1	--	1	--	--	--	--	3	1	--	7	--	10	--	48
Redlands and vicinity	3,500	4	1	--	--	1	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--
Sacramento	30,000	28	2	2	--	--	--	1	--	--	--	--	--	--	--	--	2	--	1	2	--	2	--	16
San Bernardino	10,000	5	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	3
Santa Barbara	6,700	10	2	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	2	--	4
Santa Cruz	5,594	14	3	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	8
Santa Monica	3,500	6	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	1	--	1	--	2
Santa Rosa	10,000	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Stockton	25,000	15	3	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--	--	5
Vallejo	5,904	12	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	8
Wheatland	700	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Totals	313,398	357	56	20	--	1	4	4	7	1	--	2	--	--	--	--	14	1	4	13	5	34	4	187

NOVEMBER, 1900.

Reports from 21 cities, towns, villages, and sanitary districts, aggregating a population of 689,277, show a mortality of 1,006—a death-rate of 1.46 per thousand for November, 1900, or 17.52 per thousand per annum.

There were 156 deaths from consumption, 71 from pneumonia, 22 from bronchitis, 6 from congestion of the lungs, 7 from diarrhœa and dysentery, 4 from cholera infantum, 58 from other diseases of the stomach and bowels, 13 from diphtheria, 3 from croup, 6 from scarlatina, 8 from measles, 6 from whooping-cough, 5 from malarial fever, 26 from typhoid fever, 10 from cerebro-spinal fever, 44 from cancer, 1 from erysipelas, 103 from heart diseases, and 23 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during November, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bowels	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	17,000	15	3	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	4	--	6
Azusa and vicinity	2,000	5	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	2
Chico and vicinity	7,500	9	1	1	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	--	5
Eureka and vicinity	10,000	10	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	--	7
Fresno	15,000	32	2	--	--	--	--	--	3	1	--	--	--	--	--	--	7	--	1	3	--	1	--	14
Grass Valley and vicinity	7,000	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2
Highlands	2,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Lincoln	1,200	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	--	--	--	2
Los Angeles	103,000	134	32	10	1	--	--	--	--	2	--	2	--	--	--	--	6	--	1	--	--	12	1	67
Mariposa	425	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Napa	4,500	5	2	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	1
Oakland	75,000	86	14	8	5	--	--	--	--	--	--	--	1	--	--	--	--	--	--	4	--	9	2	43
Pleasanton	11,000	3	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--
Redlands and vicinity	3,500	7	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	3
Sacramento	30,000	39	7	2	2	--	--	--	--	--	1	--	--	--	--	--	1	--	2	3	--	2	1	18
San Bernardino	6,100	12	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	6
San Francisco	360,000	573	77	48	13	5	5	4	54	6	--	3	7	--	6	4	9	--	2	27	1	67	18	217
San Luis Obispo	6,000	18	5	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	--	--	--	11
Santa Barbara	6,700	10	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	1	1	5
Santa Clara County	12,887	26	3	--	1	1	1	--	--	1	--	1	--	--	--	--	--	--	1	2	--	2	--	13
Santa Cruz	10,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Santa Monica	3,500	5	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2
Vallejo	7,965	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Wheatland	700	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Totals	689,277	1,006	156	71	22	6	7	4	58	13	3	6	8	--	6	5	26	--	10	44	1	103	23	434

NOTE.—The Health Officer, reporting from city of Fresno, states that the cause of the large death-rate in his city is accounted for from the fact that the County Hospital is now located there, as well as a large private sanitarium, which draws from a large section of the surrounding country.

DECEMBER, 1900.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 679,865, show a mortality of 1,106—a death-rate of 1.58 per thousand for December, 1900, or 18.96 per thousand per annum.

There were 174 deaths from consumption, 131 from pneumonia, 31 from bronchitis, 7 from congestion of the lungs, 1 from diarrhœa and dysentery, 1 from cholera infantum, 46 from other diseases of the stomach and bowels, 19 from diphtheria, 2 from croup, 3 from scarlatina, 5 from measles, 12 from whooping-cough, 2 from malarial fever, 13 from typhoid fever, 11 from cerebro-spinal fever, 42 from cancer, 1 from erysipelas, 114 from heart diseases, and 19 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during December, 1900.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	11,900	22	1	1	1	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	5	--	12
Azusa and vicinity	4,000	4	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Chico and vicinity	7,500	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Downey and vicinity	2,500	5	1	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Etna Mills	1,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Eureka and vicinity	10,000	9	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
Grass Valley and vicinity	7,000	6	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Lincoln	500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Los Angeles	103,000	161	34	11	3	--	--	--	--	1	--	1	--	--	--	--	2	--	6	--	--	10	1	92
Mariposa	1,500	3	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	2
Napa	4,500	18	2	1	--	--	--	--	--	--	2	--	1	--	--	--	--	--	2	1	--	3	1	5
Oakland	75,000	93	11	16	3	--	--	--	--	3	--	--	--	--	--	--	1	--	--	3	--	11	--	45
Pleasanton	10,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	13	7	1	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Sacramento	30,000	36	4	4	--	--	--	--	--	--	--	--	--	--	--	--	2	--	1	1	--	--	1	23
San Bernardino	10,000	8	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	4
San Francisco	360,000	680	101	94	22	5	1	1	41	14	--	1	4	--	11	2	6	--	1	35	1	79	16	245
San Luis Obispo	6,000	14	3	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	9
Stockton	25,000	21	3	1	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	4	--	11
Vallejo	7,965	9	1	1	1	1	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	4
Totals	679,865	1,106	174	131	31	7	1	1	46	19	2	3	5	--	12	2	13	--	11	42	1	114	19	472

JANUARY, 1901.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 696,895, show a mortality of 1,352—a death-rate of 1.92 per thousand for the month of January, 1901, or 23.04 per thousand per annum.

There were 199 deaths from consumption, 203 from pneumonia, 40 from bronchitis, 7 from congestion of the lungs, 2 from diarrhœa and dysentery, 1 from cholera infantum, 49 from other diseases of the stomach and bowels, 26 from diphtheria, 1 from croup, 2 from scarlatina, 6 from measles, 5 from whooping-cough, 1 from malarial fever, 15 from typhoid fever, 8 from cerebro-spinal fever, 48 from cancer, 5 from erysipelas, 155 from heart diseases, and 7 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during January, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,500	9	3	2	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Eureka and vicinity	10,000	8	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Grass Valley and vicinity	7,000	4	--	--	--	--	--	--	-	1	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Lincoln	1,100	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Los Angeles	103,000	241	36	48	5	--	--	--	--	6	--	1	--	--	--	--	5	--	2	--	--	12	2	124
Mariposa	1,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Napa	4,500	10	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	1	--	--	5	--	2
National City	1,200	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Oakland	75,000	88	7	18	3	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	3	1	53
Pomona and vicinity	7,500	14	4	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Pleasanton	10,000	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	5,000	18	8	2	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	2	--	4
Sacramento	30,000	52	10	8	2	--	--	--	--	--	1	--	--	--	--	--	--	--	2	2	1	3	--	23
San Bernardino	10,000	16	3	7	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	4
San Francisco	360,000	788	110	110	28	5	1	--	44	17	--	1	6	--	5	1	8	--	--	41	4	119	4	284
San Luis Obispo	6,000	16	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	13
Santa Barbara	6,700	11	2	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	3	--	4
Santa Clara County	25,000	27	5	2	--	2	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	1	--	15
Stockton	25,000	25	6	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	2	--	4	--	11
Vallejo	7,965	19	2	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	15
Totals	696,895	1,352	199	203	40	7	2	1	49	26	1	2	6	--	5	1	15	--	8	48	5	155	7	572

FEBRUARY, 1901.

Reports from 22 cities, towns, villages, and sanitary districts, aggregating a population of 325,704, show a mortality of 409—a death-rate of 1.25 per thousand for the month of February, 1901, or 15 per thousand per annum.

There were 73 deaths from consumption, 45 from pneumonia, 9 from bronchitis, 2 from congestion of the lungs, 1 from diarrhœa and dysentery, 3 from other diseases of the stomach and bowels, 3 from diphtheria, 2 from measles, 1 from smallpox, 1 from whooping-cough, 3 from typhoid fever, 8 from cerebro-spinal fever, 8 from cancer, 1 from erysipelas, 37 from heart diseases, and 3 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during February, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Bodie	800	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Colton and vicinity	2,500	0	--	--	--	--	--	--	--	--	-	--	--	--	--	--	--	--	--	--	--	--	--	--
Fresno	12,000	14	2	2	--	--	1	--	--	--	--	--	--	--	--	--	1	--	2	1	--	1	--	4
Grass Valley and vicinity	7,000	5	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Lincoln	500	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Los Angeles	103,000	161	25	21	5	--	--	--	--	1	--	--	--	--	--	--	2	--	3	--	1	14	2	87
Mariposa	2,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Napa	4,500	8	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	4	--	2
National City	1,200	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oakland	75,000	89	17	13	3	--	--	--	--	1	--	--	1	--	1	--	--	--	1	1	--	7	--	44
Palo Alto	2,000	3	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Pleasanton	10,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	12	4	2	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Sacramento	30,000	31	7	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	2	--	1	--	19
San Bernardino	10,000	5	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
San Luis Obispo	6,000	10	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	7
Santa Barbara	6,700	10	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2	--	6
Santa Clara County	12,000	24	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2	--	13
Santa Monica	10,000	6	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Stockton	25,000	14	1	2	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	2	1	6
St. Helena and vicinity	2,800	4	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Vallejo	5,904	10	--	1	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	4	--	4
Totals	325,704	409	73	45	9	2	1	--	3	3	--	--	2	1	1	--	3	--	8	8	1	37	3	209

MARCH, 1901.

Reports from 17 cities, towns, and sanitary districts, aggregating a population of 345,691, show a mortality of 440—a death-rate of 1.27 per thousand for the month of March, 1901, or 15.24 per thousand per annum.

There were 97 deaths from consumption, 40 from pneumonia, 4 from bronchitis, 3 from congestion of the lungs, 2 from diarrhœa and dysentery, 3 from other diseases of the stomach and bowels, 1 from diphtheria, 1 from croup, 1 from scarlatina, 7 from typhoid fever, 9 from cerebro-spinal fever, 14 from cancer, 47 from heart diseases.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during March, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of Stomach & Bowels	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Colton and vicinity	2,500	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	1
Chico and vicinity	7,500	8	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	3
Eureka and vicinity	10,000	11	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	7
Fresno	12,000	20	3	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	2	1	--	1	--	11
Highland	--	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lincoln	500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Los Angeles	103,000	168	37	10	1	--	1	--	--	1	--	--	--	--	--	--	5	--	4	--	--	19	--	90
National City	1,200	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Oakland	75,000	105	23	11	2	--	1	--	--	--	--	1	--	--	--	--	1	--	2	6	--	12	--	46
Palo Alto	2,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Redlands and vicinity	3,500	14	6	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	4
Sacramento	30,000	32	7	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2	--	16
San Bernardino	10,000	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	4
Santa Barbara	6,700	8	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2
Santa Clara County	22,887	26	5	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	5	--	11
Santa Monica	10,000	7	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2
Stockton	25,000	19	3	3	--	2	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	2	--	7
Vallejo	5,904	11	1	1	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	2	--	5
Totals	345,691	440	97	40	4	3	2	--	3	1	1	1	--	--	--	--	7	--	9	14	--	47	--	211

APRIL, 1901.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 679,491, show a mortality of 1,103—a death-rate of 1.63 per thousand for the month of April, 1901, or 19.56 per thousand per annum.

There were 189 deaths from consumption, 127 from pneumonia, 23 from bronchitis, 6 from congestion of the lungs, 6 from diarrhœa and dysentery, 3 from cholera infantum, 37 from other diseases of the stomach and bowels, 13 from diphtheria, 2 from croup, 4 from scarlatina, 2 from measles, 8 from whooping-cough, 13 from typhoid fever, 14 from cerebro-spinal fever, 39 from cancer, 2 from erysipelas, 110 from heart diseases, 9 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during April, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bowls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Colton and vicinity	2,500	4	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-	--	1
Chico and vicinity	7,500	6	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Fresno	12,000	34	6	2	3	--	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	3	--	16
Highland	1,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--
Lincoln	500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Los Angeles	103,000	170	31	21	3	--	1	--	--	3	--	4	1	--	--	--	4	--	2	--	--	12	--	88
Mariposa	1,000	4	1	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
National City	1,200	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	2
Oakland	75,000	77	11	9	--	--	--	--	--	1	--	--	--	--	--	--	2	--	2	3	--	10	--	39
Pleasanton	11,000	4	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Redlands and vicinity	3,500	11	3	1	1	--	--	--	1	--	--	--	--	--	1	--	1	--	--	1	--	--	1	1
Sacramento	30,000	42	16	8	1	--	--	--	--	2	--	--	--	--	--	--	--	--	1	1	--	2	--	11
San Bernardino	10,000	11	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	--	--	4	--	4
San Francisco	360,000	652	102	72	15	5	4	2	33	6	--	--	--	--	7	--	5	--	5	33	1	63	8	290
San Luis Obispo	6,000	15	2	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11
Santa Barbara	6,700	11	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	4
Santa Clara County	12,887	27	4	4	--	1	--	--	--	1	--	--	--	--	-	--	--	--	--	--	--	5	--	11
Stockton	25,000	21	3	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6	--	6
St. Helena and vicinity	2,800	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
Vallejo	5,904	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	5
Totals	679,491	1,103	189	127	23	6	6	3	37	13	2	4	2	--	8	--	13	--	14	39	2	110	9	496

MAY, 1901

Reports from 17 cities, towns, villages, and sanitary districts, aggregating a population of 641,816, show a mortality of 961—a death-rate of 1.49 per thousand for the month of May, 1901, or 17.88 per thousand per annum.

There were 142 deaths from consumption, 78 from pneumonia, 12 from bronchitis, 2 from congestion of the lungs, 5 from diarrhœa and dysentery, 3 from cholera infantum, 53 from other diseases of the stomach and bowels, 12 from diphtheria, 2 from scarlatina, 2 from measles, 5 from whooping-cough, 5 from typhoid fever, 10 from cerebro-spinal fever, 54 from cancer, 5 from erysipelas, 90 from heart diseases, 13 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during May, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Colton and vicinity	2,500	3	1	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cloverdale	1,500	5	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Fresno	38,240	25	5	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	18
Healdsburg	1,485	6	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	1
Lincoln	1,100	4	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Los Angeles	103,000	148	21	7	2	--	1	--	--	2	--	--	--	--	--	--	--	--	2	--	--	10	2	101
Napa	4,500	4	2	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
Oakland	75,000	81	11	15	--	--	--	--	--	1	--	--	--	--	--	--	--	--	1	8	--	12	--	33
Pomona and vicinity	7,500	13	5	--	--	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
Pleasanton	11,000	2	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Redlands and vicinity	3,500	6	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	2
Sacramento	30,000	36	6	3	1	--	--	--	--	--	--	--	--	--	1	--	1	--	--	2	--	3	--	19
San Francisco	360,000	591	78	48	9	2	3	3	49	9	--	2	1	--	3	--	3	--	7	39	5	56	11	263
Santa Barbara	6,700	6	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Santa Clara County	12,887	21	5	4	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	2	--	3	--	6
Santa Monica	5,000	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	1
Vallejo	5,904	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Totals	641,816	961	142	78	12	2	5	3	53	12	--	2	2	--	5	--	5	--	10	54	5	90	13	468

JUNE, 1901.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 734,952, show a mortality of 960—a death-rate of 1.30 per thousand for the month of June, 1901, or 15.60 per thousand per annum.

There were 146 deaths from consumption, 75 from pneumonia, 19 from bronchitis, 6 from congestion of the lungs, 6 from diarrhœa and dysentery, 9 from cholera infantum, 46 from other diseases of the stomach and bowels, 13 from diphtheria, 1 from scarlatina, 7 from whooping-cough, 2 from malarial fever, 8 from typhoid fever, 22 from cerebro-spinal fever, 31 from cancer, 3 from erysipelas, 105 from heart diseases, 11 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during June, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bowels	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Alameda	17,000	34	5	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	6	--	16
Azusa and vicinity	2,500	2	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Colton and vicinity	2,500	2	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chico and vicinity	7,500	14	2	1	--	--	--	2	2	--	--	--	--	--	--	2	--	--	--	--	--	2	--	3
Fresno	38,000	24	3	2	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	13
Healdsburg	3,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Lincoln	1,100	2	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Los Angeles	103,000	147	22	9	--	--	2	--	--	--	--	--	--	--	--	--	1	--	5	--	--	20	1	87
Napa	4,500	12	1	--	--	--	--	--	3	--	--	--	--	--	1	--	--	--	--	1	--	2	--	4
Oakland	75,000	86	10	9	2	--	--	1	--	--	--	--	--	--	--	--	1	--	5	4	--	10	--	44
Pomona and vicinity	7,500	4	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Pleasanton	11,000	6	1	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Redlands and vicinity	5,000	11	6	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	3	--	1
Sacramento	30,000	46	6	5	--	--	--	1	--	1	--	--	--	--	--	--	1	--	1	--	--	2	2	27
San Diego	20,000	12	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	8
San Francisco	360,000	507	71	44	16	5	3	4	34	11	--	1	--	--	6	--	5	--	5	25	3	48	7	219
San Luis Obispo and vicinity	6,000	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	6
Santa Barbara	6,700	9	3	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	2	--	2
Santa Clara County	12,887	24	9	1	--	--	1	--	--	1	--	--	--	--	--	--	--	--	1	--	--	1	--	10
Vallejo	7,965	8	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Totals	734,952	960	146	75	19	6	6	9	46	13	--	1	--	--	7	2	8	--	22	31	3	105	11	450

JULY, 1901.

Reports from 22 cities, towns, villages, and sanitary districts, aggregating a population of 686,991, show a mortality of 922—a death-rate of 1.34 per thousand for the month of July, 1901, or 16.08 per thousand per annum.

There were 136 deaths from consumption, 55 from pneumonia, 10 from bronchitis, 5 from congestion of the lungs, 3 from diarrhœa and dysentery, 15 from cholera infantum, 42 from other diseases of the stomach and bowels, 8 from diphtheria, 1 from scarlatina, 1 from measles, 5 from whooping-cough, 3 from malarial fever, 15 from typhoid fever, 10 from cerebro-spinal fever, 42 from cancer, 92 from heart diseases, 11 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during July, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Colton and vicinity	2,500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carters	500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cloverdale	1,500	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Chico and vicinity	7,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Fresno	12,000	24	3	1	--	--	1	--	1	--	--	--	--	--	--	2	3	--	--	--	--	1	--	12
Healdsburg	3,500	3	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Lincoln	1,100	2	--	--	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Los Angeles	103,000	150	31	8	1	--	--	--	--	1	--	--	--	--	--	--	2	--	1	--	--	14	2	90
Mariposa	425	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Napa	4,500	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	3
Oakland	75,000	68	5	7	--	--	--	1	--	1	--	--	--	--	--	--	--	--	2	4	--	9	--	39
Pomona and vicinity	7,500	5	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	3
Pleasanton	11,000	2	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Redlands and vicinity	3,500	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Sacramento	30,000	40	7	1	1	--	1	1	--	--	--	--	--	--	--	--	1	--	1	3	--	7	--	17
San Diego	20,000	20	5	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	1	--	9
San Francisco	360,000	530	74	33	8	4	1	11	36	6	--	1	1	--	5	--	6	--	3	25	--	52	9	257
San Luis Obispo and vicinity	6,000	13	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	8
Santa Barbara	6,700	10	1	--	--	--	--	1	2	--	--	--	--	--	--	--	--	--	--	1	--	1	--	4
Santa Clara County	12,887	32	3	3	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	6	--	5	--	14
Vallejo	5,904	9	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	7
Totals	686,991	922	136	55	10	5	3	15	42	8	--	1	1	--	5	3	15	--	10	42	--	92	11	468

AUGUST, 1901.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 662,291, show a mortality of 834—a death-rate of 1.25 per thousand for the month of August, 1901, or 15.00 per thousand per annum.

There were 105 deaths from consumption, 51 from pneumonia, 11 from bronchitis, 2 from congestion of the lungs, 1 from diarrhœa and dysentery, 7 from cholera infantum, 48 from other diseases of the stomach and bowels, 14 from diphtheria, 1 from croup, 2 from scarlatina, 2 from measles, 3 from whooping-cough, 3 from malarial fevers, 15 from typhoid fever, 2 from intermittent fever, 5 from cerebro-spinal fever, 34 from cancer, 69 from heart diseases, 6 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during August, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,500	4	--	--	--	--	-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Carters	2,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1
Chico and vicinity	7,500	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Etna Mills	1,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Fresno	12,000	21	4	--	--	--	--	1	--	--	1	--	--	--	--	--	3	1	--	1	--	--	--	10
Grass Valley and vicinity	7,000	3	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Los Angeles	103,000	128	26	5	2	--	--	1	--	2	--	--	--	--	--	1	2	--	1	--	--	7	1	80
Napa	4,500	6	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	4
Oakland	75,000	83	8	5	--	--	--	2	--	--	--	1	--	--	--	1	--	--	1	4	--	15	--	46
Pomona and vicinity	7,500	12	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
Pleasanton	10,000	0	--	-	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-
Redlands and vicinity	3,500	7	--	--	--	--	--	--	3	--	--	--	--	--	--	--	1	--	--	--	--	1	--	2
Sacramento	30,000	31	3	3	--	--	--	--	--	--	--	--	--	--	1	--	2	--	1	4	--	4	--	13
San Francisco	360,000	478	51	33	9	2	--	2	44	12	--	1	2	--	2	1	6	--	2	24	--	37	5	245
San Luis Obispo and vicinity	6,000	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Santa Barbara	6,700	6	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Santa Clara County	12,887	26	5	1	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	1	--	3	--	14
St. Helena and vicinity	2,800	5	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Vallejo	7,904	12	2	--	-	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	9
Totals	662,291	834	105	51	11	2	1	7	48	14	1	2	2	--	3	3	15	2	5	34	--	69	6	453

SEPTEMBER, 1901.

Reports from 16 cities, towns, villages, and sanitary districts, aggregating a population of 651,176, show a mortality of 877—a death-rate of 1.34 per thousand for the month of September, 1901, or 16.08 per thousand per annum.

There were 128 deaths from consumption, 46 from pneumonia, 10 from bronchitis, 2 from congestion of the lungs, 7 from diarrhœa and dysentery, 10 from cholera infantum, 54 from other diseases of the stomach and bowels, 14 from diphtheria, 2 from croup, 4 from scarlatina, 3 from whooping-cough, 2 from malarial fevers, 17 from typhoid fever, 7 from cerebro-spinal fever, 40 from cancer, 1 from erysipelas, 91 from heart diseases, 10 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during September, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Cloverdale	1,500	2	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Chico and vicinity	7,500	9	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	6
Fresno	12,000	27	3	2	--	--	1	--	3	1	--	--	--	--	--	1	2	--	--	3	--	2	--	9
Healdsburg	1,485	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Los Angeles	103,000	147	28	7	2	--	1	--	--	--	--	--	--	--	--	--	2	--	4	--	--	15	1	87
Napa	4,500	4	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	1
National City	1,200	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oakland	75,000	71	3	4	1	--	--	--	--	2	--	--	--	--	--	1	1	--	1	4	--	12	--	42
Pleasanton	10,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Redlands and vicinity	3,500	6	2	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Sacramento	30,000	31	6	4	--	--	1	--	--	--	1	--	--	--	--	--	1	--	--	2	--	3	--	13
San Francisco	360,000	516	75	24	6	2	3	9	45	11	1	4	--	--	3	--	10	--	1	25	1	50	7	239
San Luis Obispo	6,000	7	1	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	2
Santa Barbara	6,700	12	1	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	2	1	5
Santa Clara County	12,887	29	5	2	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	3	--	2	--	15
Vallejo	5,904	10	--	--	--	--	--	1	2	--	--	--	--	--	--	--	--	--	--	--	--	2	--	5
Totals	651,176	877	128	46	10	2	7	10	54	14	2	4	--	--	3	2	17	--	7	40	1	91	10	429

OCTOBER, 1901.

Reports from 18 cities, towns, villages, and sanitary districts, aggregating a population of 659,037, show a mortality of 955—a death-rate of 1.44 per thousand for the month of October, 1901, or 17.28 per thousand per annum.

There were 126 deaths from consumption, 59 from pneumonia, 19 from bronchitis, 2 from congestion of the lungs, 9 from diarrhœa and dysentery, 9 from cholera infantum, 41 from other diseases of the stomach and bowels, 14 from diphtheria, 1 from croup, 1 from smallpox, 4 from whooping-cough, 1 from typho-malarial fever, 25 from typhoid fever, 11 from cerebro-spinal fever, 39 from cancer, 2 from erysipelas, 97 from heart diseases, 13 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during October, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Carters	500	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Colton and vicinity	2,500	8	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
Chico and vicinity	7,500	7	1	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Fresno	15,000	23	3	--	1	1	1	--	2	2	--	--	--	--	--	--	5	--	--	1	--	1	--	6
Grass Valley and vicinity	7,000	8	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Healdsburg	1,485	7	--	1	--	--	2	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Los Angeles	103,000	149	25	11	2	--	--	--	--	--	--	--	--	--	--	--	3	--	3	--	--	14	1	90
Napa	4,500	5	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	3
National City	1,200	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	1
Oakland	75,000	77	16	4	1	--	--	1	--	1	--	--	--	--	--	--	--	--	3	4	--	10	--	37
Pleasanton	11,000	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	4
Redlands and vicinity	3,500	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Sacramento	30,000	31	3	2	--	--	--	--	--	1	--	--	--	--	--	1	1	--	--	--	--	--	1	22
San Francisco	360,000	566	68	35	14	1	6	8	33	10	1	--	--	1	4	--	15	--	3	30	2	64	11	260
San Luis Obispo	6,000	11	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	8
Santa Barbara	6,700	11	4	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	4
Santa Clara County	22,887	23	1	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	1	2	--	6	--	11
Vallejo	7,965	15	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13
Totals	659,037	955	126	59	19	2	9	9	41	14	1	--	--	1	4	1	25	--	11	39	2	97	13	482

NOVEMBER, 1901.

Reports from 17 cities, towns, villages, and sanitary districts, aggregating a population of 674,676, show a mortality of 940—a death-rate of 1.40 per thousand for the month of November, 1901, or 16.80 per thousand per annum.

There were 123 deaths from consumption, 86 from pneumonia, 22 from bronchitis, 3 from congestion of the lungs, 3 from diarrhœa and dysentery, 8 from cholera infantum, 58 from other diseases of the stomach and bowels, 16 from diphtheria, 1 from croup, 1 from whooping-cough, 1 from malarial fever, 14 from typhoid fever, 7 from cerebro-spinal fever, 34 from cancer, 1 from erysipelas, 99 from heart diseases, 10 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during November, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,500	3	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Carters	1,000	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Cloverdale	1,500	4	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Fresno	35,000	30	--	7	2	--	--	2	2	--	--	--	--	--	--	--	1	--	1	--	--	2	--	13
Healdsburg	3,485	9	1	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	5
Los Angeles	103,000	159	26	16	1	--	--	--	--	1	--	--	--	--	--	--	2	--	2	--	--	14	2	95
Napa	4,500	9	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	5
National City	1,200	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oakland	75,000	75	9	9	2	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	9	--	44
Pleasanton	11,000	3	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2
Redlands and vicinity	3,500	5	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sacramento	30,000	28	5	1	2	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	6	1	11
San Francisco	360,000	564	69	44	14	2	1	4	54	15	--	--	--	--	1	1	10	--	2	33	1	58	6	249
San Luis Obispo	6,000	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	--	--	--	3
Santa Barbara	6,700	9	3	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2
Santa Clara County	22,887	20	5	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	3	--	8
Vallejo	7,904	14	--	2	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	9
Totals	674,676	940	123	86	22	3	3	8	58	16	1	--	--	--	1	1	14	--	7	34	1	99	10	453

DECEMBER, 1901.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 696,076, show a mortality of 1,060—a death-rate of 1.52 per thousand for the month of December, 1901, or 18.24 per thousand per annum.

There were 134 deaths from consumption, 111 from acute pneumonia, 16 from acute bronchitis, 5 from congestion of the lungs, 5 from diarrhœa and dysentery, 7 from cholera infantum, 39 from other diseases of the stomach and bowels, 26 from diphtheria, 2 from scarlatina, 1 from malarial fever, 12 from typhoid fever, 2 from remittent and intermittent fever, 12 from cerebro-spinal fever, 43 from cancer, 116 from heart diseases, 10 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during December, 1901.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Carters	500	2	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cloverdale	1,500	4	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Chico and vicinity	7,500	6	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	3
Fresno	35,000	29	1	5	--	1	--	--	--	2	--	--	--	--	--	--	3	--	1	1	--	3	--	12
Healdsburg	1,485	5	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	2
Lincoln	1,100	3	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Lodi and vicinity	1,500	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	1	--	--	--	1
Los Angeles	120,000	194	14	28	1	--	--	--	--	--	--	--	--	--	--	--	2	--	3	--	--	8	2	136
Napa	4,500	18	3	2	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	5	--	6
National City	1,200	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Oakland	75,000	93	9	6	2	--	--	--	10	4	--	--	--	--	--	--	--	--	--	3	--	14	1	44
Pleasanton	11,000	4	1	--	--	--	--	2	1	--	--	-	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	12	5	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
Sacramento	30,000	33	7	3	--	--	1	1	--	1	--	--	--	--	--	--	--	1	1	1	--	4	1	12
San Francisco	360,000	586	81	53	13	4	3	2	26	19	--	2	--	--	--	--	3	1	2	34	--	71	5	287
San Luis Obispo	6,000	9	--	2	--	--	1	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	4
Santa Barbara	6,700	12	3	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	4
Santa Clara County	12,887	31	7	3	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2	2	--	6	--	9
Vallejo	7,904	14	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	10
Totals	696,076	1,060	134	111	16	5	5	7	39	26	--	2	--	--	--	1	12	2	12	43	--	116	10	519

JANUARY, 1902.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 705,241, show a mortality of 1,282—a death-rate of 1.81 per thousand for the month of January, 1902, or 21.72 per thousand per annum.

There were 199 deaths from consumption, 181 from pneumonia, 33 from bronchitis, 6 from congestion of the lungs, 1 from diarrhœa and dysentery, 29 from other diseases of the stomach and bowels, 37 from diphtheria, 2 from croup, 5 from scarlatina, 2 from measles, 1 from smallpox, 1 from malarial fever, 13 from typhoid fever, 10 from cerebro-spinal fever, 42 from cancer, 5 from erysipelas, 115 from heart diseases, 7 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during January, 1902.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of Stomach & Bowels	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Fresno County	37,000	36	--	6	3	--	--	--	2	1	--	--	--	--	--	--	--	--	--	2	1	2	--	19
Grass Valley and vicinity	7,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Healdsburg	3,500	5	1	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Lincoln	1,100	2	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Los Angeles	120,000	221	57	47	6	--	--	--	--	3	--	1	--	--	--	--	2	--	3	--	--	15	1	86
Napa	4,500	11	1	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	4
National City	1,200	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Nevada City	3,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Oakland	75,000	102	14	12	7	--	--	--	--	1	--	2	--	--	--	1	--	--	--	--	--	13	--	52
Pleasanton	10,000	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Redlands and vicinity	3,500	13	5	2	1	--	--	--	2	--	--	--	--	--	--	--	1	--	--	--	--	--	--	2
Sacramento	30,000	39	2	5	2	--	--	--	--	1	--	--	--	--	--	--	1	--	1	--	--	6	--	21
San Francisco	360,000	749	106	92	12	5	1	--	23	28	--	2	2	--	--	--	9	--	5	35	4	67	6	352
San Luis Obispo	6,000	9	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	7
Santa Barbara	6,700	10	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	1	--	4
Santa Clara County	12,887	37	3	7	2	--	--	--	--	1	--	--	--	--	--	--	--	--	1	2	--	4	--	17
Stockton	25,000	14	2	2	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	9
St. Helena and vicinity	2,800	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2
Tehama	350	6	--	--	--	--	--	--	--	2	2	--	--	--	--	--	--	--	--	1	--	--	--	1
Vallejo	7,904	16	4	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	9
Totals	705,241	1,282	199	181	33	6	1	--	29	37	2	5	2	1	--	1	13	--	10	42	5	115	7	593

FEBRUARY, 1902.

Reports from 24 cities, towns, villages, and sanitary districts, aggregating a population of 707,964, show a mortality of 1,162—a death-rate of 1.64 per thousand for the month of February, 1902, or 19.68 per thousand per annum.

There were 172 deaths from consumption, 149 from pneumonia, 22 from bronchitis, 5 from congestion of the lungs, 1 from diarrhœa and dysentery, 32 from other diseases of the stomach and bowels, 30 from diphtheria, 1 from croup, 5 from scarlatina, 1 from measles, 1 from smallpox, 4 from whooping-cough, 9 from typhoid fever, 5 from cerebro-spinal fever, 45 from cancer, 1 from erysipelas, 95 from heart diseases, 11 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during February, 1902.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of Stomach & Bowels	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Auburn	1,601	10	1	4	--	--	--	--	--	--	--	--	--	--	--	-	--	--	--	--	--	1	--	4
Azusa and vicinity	2,500	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Carters	500	3	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1
Cloverdale	1,500	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Fresno	15,000	22	1	2	1	--	--	--	2	--	--	--	--	--	--	--	2	--	--	1	--	--	--	13
Grass Valley and vicinity	7,000	2	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Healdsburg	3,500	4	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Los Angeles	103,000	215	50	30	4	--	--	--	--	2	--	2	--	--	--	--	2	--	1	--	--	15	2	107
Napa	4,500	13	4	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2	--	5
National City	1,200	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nevada City	2,736	3	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Oakland	75,000	98	9	13	5	1	--	--	--	1	--	--	--	1	--	--	1	--	1	7	--	6	--	53
Pleasanton	10,000	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	10	4	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	4
Sacramento	30,000	38	4	5	--	1	--	--	--	1	--	--	--	--	--	--	--	--	--	1	--	4	--	22
San Francisco	360,000	626	80	72	9	1	1	--	28	24	--	3	1	--	4	--	2	--	2	32	1	57	7	302
San José	18,027	34	4	8	2	--	--	--	--	--	--	--	--	--	--	--	--	--	1	2	--	3	--	14
San Luis Obispo	6,000	14	3	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	--	9
Santa Barbara	6,700	13	3	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
Stockton	25,000	17	1	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2	--	5
St. Helena and vicinity	2,800	7	2	--	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Tehama	8,350	8	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
Vallejo	8,500	11	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	7
Yolo County	13,250	9	2	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	4
Totals	707,964	1,162	172	149	22	5	1	--	32	30	1	5	1	1	4	--	9	--	5	45	1	95	11	573

MARCH, 1902.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 671,655, show a mortality of 1,119—a death-rate of 1.65 per thousand for the month of March, 1902, or 19.80 per thousand per annum.

There was 180 deaths from consumption, 117 from pneumonia, 19 from bronchitis, 1 from congestion of the lungs, 1 from cholera infantum, 28 from other diseases of the stomach and bowels, 40 from diphtheria, 1 from croup, 4 from scarlatina, 2 from measles, 1 from malarial fever, 6 from typhoid fever, 6 from cerebro-spinal fever, 47 from cancer, 2 from erysipelas, 103 from heart diseases, 11 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstracts of the Reports of Deaths and their Causes in the following Cities and Towns of California during March, 1902.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Azusa and vicinity	2,000	5	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	3
Carters	1,500	4	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2
Fresno	12,000	12	3	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Grass Valley and vicinity	7,000	17	--	2	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	--	1	--	12
Healdsburg	1,485	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1
Los Angeles	120,000	234	53	30	4	--	--	1	--	2	--	3	--	--	--	--	--	--	2	--	--	12	1	126
National City	1,200	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1
Nevada City	2,736	7	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	2	--	4
Oakland	75,000	74	7	8	4	--	--	--	--	5	--	--	--	--	--	--	--	--	1	--	--	6	--	43
Placer County	1,684	8	2	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	2	--	3
Pleasanton	1,000	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Redlands and vicinity	3,500	13	6	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	5
Sacramento	30,000	34	4	2	2	--	--	--	--	--	--	--	--	--	--	--	1	--	--	2	1	4	--	18
San Francisco	360,000	640	96	69	7	1	--	--	23	28	--	1	2	--	--	1	3	--	2	40	1	68	9	289
San Luis Obispo	6,000	11	2	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	2	--	5
Santa Barbara	6,700	12	3	--	1	--	--	--	--	3	--	--	--	--	--	--	--	--	--	1	--	1	--	3
Stockton	25,000	17	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2	--	11
Tehama County	6,350	12	2	1	--	--	--	--	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	6
Vallejo	8,500	13	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	10
Totals	671,655	1,119	180	117	19	1	--	1	28	40	1	4	2	--	--	1	6	--	6	47	2	103	11	550

APRIL, 1902.

Reports from 18 cities, towns, villages, and sanitary districts, aggregating a population of 658,920, show a mortality of 1,013—a death-rate of 1.53 per thousand for the month of April, 1902, or 18.36 per thousand per annum.

There were 163 deaths from consumption, 98 from pneumonia, 11 from bronchitis, 2 from congestion of the lungs, 4 from diarrhœa and dysentery, 3 from cholera infantum, 24 from other diseases of the stomach and bowels, 24 from diphtheria, 1 from scarlatina, 8 from measles, 6 from typhoid fever, 8 from cerebro-spinal fever, 34 from cancer, 3 from erysipelas, 118 from heart diseases, 7 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during April, 1902.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bowels	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Carters	600	3	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Fresno	12,000	27	3	6	--	--	--	--	2	--	--	--	--	--	--	--	1	--	--	2	--	3	--	10
Healdsburg	3,500	9	1	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	3
Los Angeles	103,000	172	41	14	--	--	2	1	--	5	--	--	--	--	--	--	--	--	1	--	--	3	2	98
Napa	4,500	8	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	4
National City	1,200	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Nevada City	2,736	6	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	3
Oakland	75,000	84	11	10	3	--	1	--	--	2	--	--	1	--	--	--	2	--	1	--	1	11	--	41
Placer County	1,684	7	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	2	--	3
Pleasanton	1,000	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Redlands and vicinity	3,500	14	8	1	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	1	--	--	--	2
Sacramento	30,000	25	6	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	3	--	13
San Francisco	360,000	608	83	55	8	2	1	2	19	16	--	1	6	--	--	--	3	--	6	27	2	80	5	292
San Luis Obispo	6,000	12	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	7
Santa Barbara	6,700	3	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	2
Santa Clara	4,000	2	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Stockton	25,000	21	5	2	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	--	4	--	8
Vallejo	8,500	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9
Totals	658,920	1,013	163	98	11	2	4	3	24	24	--	1	8	--	--	--	6	--	8	34	3	118	7	499

MAY, 1902.

Reports from 20 cities, towns, villages, and sanitary districts, aggregating a population of 712,786, show a mortality of 939—a death-rate of 1.31 per thousand for the month of May, 1902, or 15.72 per thousand per annum.

There were 124 deaths from consumption, 86 from pneumonia, 11 from bronchitis, 7 from congestion of the lungs, 5 from diarrhœa and dysentery, 1 from cholera infantum, 44 from other diseases of the stomach and bowels, 19 from diphtheria, 7 from measles, 14 from typhoid fever, 1 from remittent fever, 4 from cerebro-spinal fever, 38 from cancer, two from erysipelas, 85 from heart diseases, 10 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during May, 1902.

Cities and Towns.	Estimated Population	Total Deaths.	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of St'mach & Bow'ls	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Disease	Alcoholism	Other Causes
Azusa and vicinity	2,000	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carters	350	3	--	-	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Cloverdale	1,500	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fresno	35,000	22	4	--	1	2	1	--	1	--	--	--	--	--	--	--	--	--	1	1	--	--	--	11
Long Beach and vicinity	4,000	7	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	4
Los Angeles	120,000	182	28	18	2	--	--	--	--	2	--	--	1	--	--	--	3	--	2	--	--	9	--	117
Napa	4,500	7	1	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	--	1	--	3
National City	1,200	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nevada City	2,736	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Oakland	75,000	64	7	4	1	1	--	--	3	1	--	--	-	--	--	--	1	--	1	--	--	6	--	39
Placer County	11,000	5	--	1	1	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1
Pleasanton	11,000	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Redlands and vicinity	3,500	8	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	2
Sacramento	30,000	23	2	2	1	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	2	--	14
San Francisco	360,000	578	69	54	3	1	3	1	35	14	--	--	6	--	--	--	9	1	--	33	2	63	9	275
San Luis Obispo	6,000	7	1	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	4
Santa Barbara	7,500	8	2	1	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	--	--	--	2
Santa Clara	4,000	3	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--
Stockton	25,000	8	1	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	4
Vallejo	8,500	10	3	1	--	1	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
Totals	712,786	939	124	86	11	7	5	1	44	19	--	--	7	--	--	--	14	1	4	38	2	85	10	481

JUNE, 1902.

Reports from 19 cities, towns, villages, and sanitary districts, aggregating a population of 673,685, show a mortality of 957—a death-rate of 1.42 per thousand for the month of June, 1902, or 17.04 per thousand per annum.

There were 134 deaths from consumption, 64 from pneumonia, 9 from bronchitis, 1 from congestion of the lungs, 3 from diarrhœa and dysentery, 7 from cholera infantum, 47 from other diseases of the stomach and bowels, 25 from diphtheria, 2 from croup, 3 from scarlatina, 1 from measles, 1 from malarial fever, 10 from typhoid fever, 7 from cerebro-spinal fever, 29 from cancer, 3 from erysipelas, 103 from heart diseases, 4 from alcoholism.

Reports from various sanitary districts, outside of larger cities and towns, show a generally favorable condition of the public health.

Abstract of the Reports of Deaths and their Causes in the following Cities and Towns of California during June, 1902.

Cities and Towns.	Estimated Population	Total Deaths	Consumption	Acute Pneumonia	Acute Bronchitis	Congestion of the Lungs	Diarrhœa and Dysentery	Cholera Infantum	Other Diseases of Stomach & Bowels	Diphtheria	Croup	Scarlatina	Measles	Smallpox	Whooping-Cough	Typho-Malarial Fevers	Typhoid Fever	Remittent and Intermittent Fevers	Cerebro-Spinal Fever	Cancer	Erysipelas	Heart Diseases	Alcoholism	Other Causes
Cloverdale	1,500	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2
Fresno	15,000	20	3	1	--	--	--	1	3	--	1	--	--	--	--	1	--	--	1	1	--	1	--	7
Healdsburg	3,500	3	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2
Los Gatos	1,645	2	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--
Los Angeles	120,000	185	17	9	2	--	--	1	--	1	--	--	--	--	--	--	2	--	2	--	2	22	--	127
Napa	4,500	6	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	3
National City	1,200	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Nevada City	2,736	12	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	9
Oakland	75,000	74	12	9	1	--	--	2	--	2	--	--	--	--	--	--	2	--	2	--	--	11	--	33
Pleasanton	11,000	6	1	1	1	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
Redlands and vicinity	3,500	8	2	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Riverside	9,000	8	2	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	1	--	1	--	2
Sacramento	30,000	32	5	3	2	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	3	--	18
San Francisco	360,000	551	81	40	3	1	2	2	40	21	1	2	1	--	--	--	6	--	1	23	1	57	4	265
San Luis Obispo	6,000	11	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7
Santa Barbara	6,700	11	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	9
Santa Clara	4,000	2	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Stockton	25,000	15	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	2	--	11
Vallejo	8,904	7	2	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	3
Totals	673,685	957	134	64	9	1	3	7	47	25	2	3	1	--	--	1	10	--	7	29	3	103	4	504

DEATHS FROM COMMUNICABLE DISEASES,

As per Monthly Reports made by the Secretary of the State Board of Health for the Fifty-third Fiscal Year.

1901-1902.	Scarlatina	Diphtheria	Measles	Whooping-Cough	Typhoid Fever	Tuberculosis	Total, including Tuberculosis	All Other Causes	Grand Total	Population Reporting
1901.										
July	1	8	1	5	15	136	166	756	1,088	686,991
August	2	14	2	3	15	105	141	694	976	662,291
September	4	14	.....	3	17	128	166	711	1,043	651,176
October	.....	14	.....	4	25	126	169	786	1,124	659,037
November	.....	16	.....	1	14	123	154	786	1,094	674,676
December	2	26	.....	.....	12	134	174	886	1,234	696,076
1902.										
January	5	37	2	.....	13	199	256	1,026	1,538	705,241
February	5	30	1	4	9	172	221	941	1,383	707,964
March	4	40	2	.....	6	180	232	887	1,351	671,655
April	1	24	8	.....	6	163	202	811	1,215	658,920
May	.....	19	7	.....	14	124	164	775	1,103	712,786
June	3	25	1	.....	10	134	173	784	1,130	673,685
Totals	27	267	24	20	156	1,724	2,218	9,843	14,279	8,160,498
Rate per 1,000 per annum	.04	.39265	.0353	.03	.23	2.535	.....	.....	21	.....

Average population reporting, 680,041, or 46% of total population.

PREVALENCE OF MODIFIED SMALLPOX.

[The State Board of Health has been called upon by health authorities in nearly half the counties of the State to settle a difference of opinion as to whether an eruptive disease prevailing among them was smallpox or something else. Our expert has invariably reported the disease to be smallpox. Inasmuch as it still exists in the State and these calls upon us for diagnoses are likely to continue, we reproduce extracts from an open letter by Dr. James Nevins Hyde, addressed to the Illinois State Board of Health. This letter reviews the epidemic of modified smallpox prevalent in some portions of the United States.]

The prevalent epidemic is one of smallpox (variola). To refuse to accept this fact is to be guilty of egregious folly and to commit a dangerous blunder. Fortunately, the symptoms thus far exhibited have been those of modified or mitigated smallpox. The question of chief interest thus awakened concerns chiefly the difference to be established between unmitigated, unmodified smallpox (so called, variola vera) and the mild or mitigated form from which so large a number of our people have lately suffered.

The history, symptoms, and career of unmodified smallpox have been so systematically and fully recorded in medical literature that it will be needless in these pages to recount them. They are equally accessible to physicians and to laymen in the pages of the standard treatises devoted to the subject. In this connection it will be needful merely to outline in brief terms the symptoms of the mitigated form of the disease as it now epidemically prevails.

In well-marked cases the malady is usually ushered in by a chill, or by sensations of unusual faintness, or even by milder symptoms. Not often has a history been obtained of long-preceding languor and depression. The chill, when such is experienced, is followed by a rise in temperature, and the records of many of these patients show that 105° F. is often reached. Nausea, either with vomiting or amounting to merely a distressed feeling in the region of the stomach, may be present or be not perceived. Pain in the back (lumbar ache) is relatively frequent. With these symptoms may be experienced headache, dizziness and faintness. Dr. William M. Welch (Phila. Med. Jour., Nov. 18, 1899) has presented an admirable picture of the symptoms noted in the prevalent epidemic, and he adds that in children there is apt to be a tendency to stupor, and that convulsions often occur. In from two to three days there follows either a complete disappearance of all the symptoms of fever, or a very pronounced reduction of the temperature. In a few cases this practically closes the career of the disease. In the

most, however, an eruption promptly appears, first, as a rule, on the exposed portions of the skin, such as the face, including the temples, and the scalp and the neck and hands, which, with greater or less rapidity, at the most in two or three days, becomes distinctly generalized, that is, it spreads over the general surface, involving the head, trunk, and limbs, including the mouth, the palms of the hands, and the soles of the feet. This eruption, usually completely developed in twelve hours, is declared by the production of minute, distinct, isolated, and firm elevations of the surface (papules), which, when compressed between the thumb and finger, produce the impression to the touch of small-sized shot imbedded within the skin. Between the second and third days, on the summit of these shot-like elevations, develop "watery heads" (vesicles), having imprisoned within each a clear fluid (serum, sero-pus), which becomes opaque or cloudy in the course of the third or fourth day. In some of these isolated elevations (papulo-vesicles) there may be evident a distinct puckering or infolding of the top of the head (umbilication). In many cases, however, this symptom is either wholly wanting or but faintly declared at a few points, to be discovered only after careful search of the entire field affected with the rash.

The watery stage of these elevated semi-solid points is more or less rapidly exchanged for that where pus is formed in each, and the resulting pustules in well-marked cases are in the course of the fifth or sixth day rather symmetrically distributed over the surface of the regions already named, the largest and most distended occurring, as a rule, over the exposed parts, such as the face and the hands. At about this time a very distinctly-defined, narrow, reddish blush forms as a margin (halo) about the elevated pock, which persists with greater or less conspicuousness until the crusts which form later are shed. The pustules are large, often as large as small beans; they may seem to "balloon" with matter; they are highly disfiguring.

Thus far in its career the disease corresponds to a degree with the usual course of unmodified smallpox, and in fact can rarely be mistaken for any other malady. It has been shown that even before reaching any one of the stages described, there may be a speedy relief of all symptoms and the patient may not only not have remained in bed, but may have actually undertaken the usual pursuits of his or her vocation in life. The most significant and startling contrast, however, between modified and unmodified smallpox is exhibited when the patient, after reaching the stage described, of complete development of pustules, suddenly ceases to betray any further significant symptoms of smallpox. The pustules dry rapidly into crusts, which are thrown off and leave the skin either somewhat stained at the points where the crusts formed or in nearly its normal condition. Some of the elevated points seem to recede; others with insignificant crusts atop each, when

the latter are removed, resemble in appearance simple warts, from which the head has been torn in the act of scratching. In yet others, semi-solid elevations (papules) of the skin remain, which do not betray the tendency to maturation (suppuration) displayed in other cases.

In the most of instances there is afterward an entire absence of the subsequent manifestations of unmodified smallpox, such as secondary fever, which in the severer forms of the disease is without question of septic origin. The grave consequences of the malady recognized in the nose, the mouth, the lungs, and the viscera, accompanied often by evidences of dangerous implication of the nervous centers, are all wanting. In rare cases, secondary fever has been recognized, but in a mild form.

It is claimed by some physicians that in the prevalent epidemic no scars are left at the sites of eruption, a statement which may be accepted as true for certain cases only. In others, scarring of the face follows, but to a less severe degree than in uncomplicated smallpox. Certainly, in this epidemic the eruptive symptoms are far more superficial than in unmodified smallpox, where the deep-set pustules work such havoc to the deep integument (the corium).

It is somewhat remarkable that the most precise and voluminous writers on the subject of smallpox lay but little stress upon a feature which is regarded by some practitioners as absolutely diagnostic, viz., the odor. Some authors, among whom Moore may be cited as an example, barely refer to such a symptom. Others, such as Graham, who had a large experience of the disease both in this country and abroad, limit themselves to a mention of the intolerable stench emitted, naturally enough, by patients in the pustular stage of severe confluent smallpox. Whether or not specially characteristic, the odor in these instances is both persistent and disgusting. That, however, cases of true variola occur where the average physician is wholly incapable of recognizing any peculiar odor is absolutely certain; and the absence of such a perceptible symptom is to be expected rather in the modified than in the unmodified types of the malady. In the final stages of mycosis fungoides, pemphigus malignus, and even in gunshot wounds of the chest followed by pulmonary gangrene, the fetor may be even more offensive than at the close of the career of unmodified smallpox.

The portraits presented by Dr. Welch of the form of mitigated smallpox which has been epidemic in several counties of Pennsylvania, furnish ample proof that the symptoms are those seen by our Illinois observers. The disease is one, and its manifestations are the same. In order to show that smallpox of precisely the same mild symptoms and of exactly similar type as prevalent outside of Illinois, Kentucky, Tennessee, and Pennsylvania, it is only necessary to read the reports made by physicians in these other districts. By way of illustration,

I append the following extract from one of a series of letters sent me by correspondents in Kansas. The author of the following paragraph is a physician of large experience and intelligence, filling a responsible office in his community. He not only gives a suggestive sketch of the epidemic as it has developed among his people, but also describes somewhat in detail the case of his own child watched by him with the anxiety of a father and with the care of a skillful practitioner. His letter describes a case of modified smallpox of the precise type now prevalent in Illinois and other States of the Union:

My boy, nine years old, just recovering, has the following clinical history: Thursday noon, October 19, he came home complaining of headache and dizziness, and did not want to go back to school after dinner. We kept him at home and he lay on the sofa most of the afternoon, but went outdoors for about an hour. He had some fever, but was so slightly ill that I did not use the thermometer. Friday morning he arose and dressed and felt better, but about 11 o'clock had a chill, which was followed by fever, temperature 103°. I thought he was coming down with malarial fever, and so gave him quinine. The next morning his temperature was about 102°, but he felt pretty fair until toward noon, when he complained that his feet were cold. His temperature at about 9 P. M. was 105⅘°. We began bathing him with water of a temperature about 85°, with a little alcohol added, and by 10:30 P. M. he had a temperature of about 103°. He then went to sleep, resting quietly, calling for a drink two or three times during the night. On Friday he vomited several times, and I think once on Saturday. He did not complain of headache or backache, except on Thursday. Sunday morning I discovered about half a dozen red macules on his face (left temple and cheek and right cheek), also several on his forearm and on his back. By night there were thirty or forty spots over his face, arms, and legs, and a few on his body over his chest and abdomen. Those that had appeared in the morning had increased slightly in size, had become papular, and showed a vesicle forming in their center. His temperature Sunday night was 101° F. Monday morning new spots appeared and more of the papules had become vesicles. His temperature was 99½°, and he was feeling quite easy. Monday night more spots appeared; temperature, 101½°. Tuesday was about like Monday, but spots appeared larger, more raised, and with larger vesicles. By Thursday the vesicles first formed had reached as large a size as they ever attained. There was a slight red areola about them, but when the skin was compressed between the thumb and finger, it was found that the inflammation was confined to the vesicle. The papules would at times feel a trifle "shotty" just before the vesicle formed, but when taken up between the thumb and finger they felt decidedly less so. About the fifth or sixth day after the eruption a dark spot appeared in the center of the vesicle, which gave it an umbilicated appearance. If, however, examined sidewise, it was seen to be not really umbilicated, but only appeared to be so in consequence of the difference in color. This dark spot gradually got larger, and in about six days after the first appearance of the macule it began to turn white in color, then slightly yellow, and on the seventh day a scab began to form, which took about three to five days to drop off. If these vesicles are opened when they begin to turn white, that is, from a water-color to a milk-color, and the contents are squeezed out, there is left an umbilicated spot which scabs over and falls off quicker than those not opened. On the boy's face I opened those on the left side and left untouched those on the right side. This evening one third of the scabs are off of the left side, and only one or two off on the right side. The last spots to appear were on the palms of his hands and the soles of his feet.

Turning to the other cases, of which between two hundred and two hundred and fifty have been seen by himself and his colleagues, this physician writes: "The two to four days (usually three) of fever are uniformly present. Most of the patients complain of some aching in

the head, back, and limbs. A few complain of severe aching. When the rash appears, there is uniformly a decline in the temperature and a feeling of relief. When the vesicles are not opened and pus forms, there is a slight increase of fever from about the seventh to the tenth day. If the vesicles are opened, and washed with some antiseptic lotion, little or no increase is noted. In none of the cases is there any deep or extended inflammation around the spots. They seem to be mostly in the epidermis or just below it, not in the derma. In a few cases there is umbilication, in about one to seven or twenty spots. Most of the spots are rounded throughout. The center of the spots holds the liquid, and by pricking it all the fluid can be easily squeezed out. When the scab is formed, no pus is found under it if it is pulled off. The rash takes from two to five days to come out. It appears on the soft palate, one in eight to fifteen cases. The rash appears less frequently in the axilla and the groin."

The State of Ohio, according to the report made by the Secretary of its Board of Health, Dr. Probst,* in the course of the fourteen months ending with June, 1899, was visited by an epidemic of smallpox, in which occurred 1,882 cases, with fatal results to thirty of those stricken. The description given of the disease, as it was observed by the physicians of the sixty-one cities and villages attacked, corresponds so closely with that of the cases observed in Pennsylvania, Illinois, Missouri, Kansas, and elsewhere that it is impossible not to recognize the identity of the disease wherever it has appeared. In the Ohio towns, as in other localities, the disease was so mild at first that it was erroneously termed, both by physicians and others, "chickenpox" and "impetigo contagiosa." County fairs were held, theatrical amusements attended, and public schools opened, with victims of the disease reely communicating with the unaffected. The vaccinated were mostly exempt, but a few of the protected suffered. The preliminary fever was slight, the eruption superficial, and the eruptive period brief and irregular of career; secondary fever was rare, and pitting was exceptional. A few malignant purpuric and hemorrhagic cases were observed, some of these swelling the list of fatal attacks.

The patients affected with this type of mitigated smallpox in Missouri (more particularly in St. Louis) were affected in precisely the same manner as those observed elsewhere. The first cases seen were described as "chickenpox," but later the physicians in attendance freely acknowledged their error.

The objections raised against considering these and yet milder types of the prevalent disease as smallpox in a modified form can not be supported by fact or well-founded argument. They may, however, be briefly noticed.

* Journal of the Amer. Med. Ass'n, Dec. 23, 1899.

First, the objection is urged that the watery heads (vesicles) seen in the affected patients are not puckered (umbilicated) as in the types of smallpox described in the text-books. To this it is responded that in every epidemic the puckering, or better, fluting, of the apex of the fluid-containing elevations of the skin may be wholly or in part wanting. At times the entire body-surface is practically covered with these small elevations of the outer skin filled with a cloudy fluid, each as distinctly puckered (crenated) as if the center of the roof were tied down by a centrally inserted thread. At other times one searches in vain for this interesting feature, of which it may be remarked in passing that it is not, as has been generally taught, seen only in smallpox. Other pustular diseases exhibit the same feature at times, though few to the same extent as variola. This symptom has been fairly well marked in a few patients seen by me in the present epidemic. Dr. Welch has had a similar experience. In the most cases, however, it has not been recognized.

A second objection is based not merely on the universal mildness of the symptoms in patients of the class described above, but on an almost entire absence of symptoms in the case of men and women who have been discovered on the streets pursuing their usual vocation. There is nothing novel and extraordinary in these histories. They are, however, sufficiently familiar to physicians who have had a large experience with smallpox. The lassitude and discomfort experienced by some sufferers is either ignored or absent in others, particularly in those of a vigorous constitution and of adult years. The eruptive symptoms in these cases may be limited to a few and even to two "pocks" on the body-surface. The verdict of smallpox which has been properly made in such instances has often excited the derision of uninformed persons. But the published and unrecorded experience of groups of these phenomena is too well established to be ignored. Smallpox, indeed, may occur without producing any eruption whatever (variolo sine variolis), the verification of this fact being best made in the pregnant woman, who after a chill and fever without any skin-symptoms whatever, afterward brings into the world a new-born child covered with pustules of the confluent disease.

A third objection is presented on the ground of the condition of the patients affected with the disease now epidemic when examined with reference to cowpox (vaccinia). It is alleged that in the present epidemic the vaccinated and the unvaccinated suffer alike. This is an important allegation which demands a word or two of explanation.

Vaccination is a method by which protection is secured against smallpox by introducing into the human system another and different disease. This disease, cowpox, is now well known to be different from the malady produced by the intentional production of smallpox in

cows, though there is remarkable correspondence between the two, the differences proving that the two diseases, if not identical, are certainly allied. Vaccination is a very remarkable and satisfactory method of securing immunity from smallpox, but it is far from being a perfect method. No ingenuity of man has yet sufficed to create absolute safeguards against the manifold dangers to human life. The strongest iron steamship that can be constructed may be crushed like an eggshell under the blow of one of the largest billows in an Atlantic tempest. In the gravest of smallpox epidemics, for example in the form known as hemorrhagic variola ("black measles"), the vaccinated and unvaccinated suffer—not, it is true, in the same degree, but both suffer. I have seen a man die of confluent smallpox with two excellent scars from successful vaccination on the arm. Of the cases seen by me in the towns of the State of Illinois, four out of six of the patients have exhibited no signs of vaccination and have been unable to give any record of having been vaccinated.

Now, it is not true, that on the whole the protected and unprotected suffer alike in the present crisis, but even when the disease is mitigated, an epidemic influence will explain the occurrence of smallpox in the vaccinated. It must be remembered that while the symptoms under consideration are extraordinarily mild when compared with the frightful scourge of the unmitigated disease, still the epidemic influence has been extensive and many patients, even though not dying, have suffered enormously. Some of them have been well-nigh covered with pustules, many have endured high fever. Fortunately, the physicians interested in the study of these cases find them of special interest and worthy of careful attention, but many of the victims of the prevailing epidemic have an aspect which proves in the highest degree loathsome and suggestive of horror to persons unfamiliar with the disease, who would probably, if occasion offered, flee affrighted from the presence of the sufferer. So, then, although the symptoms are unquestionably mitigated, still an epidemic actually prevails and one productive of serious, even if not always fatal, mischief. This epidemic influence is a potent factor. It is an influence exerted generally in any community attacked, so that the susceptible suffer as they would not if a sporadic case, for example, of smallpox were by accident introduced among them. The French have a proverb which runs: "At night all cats are gray." In an epidemic of smallpox the shades of difference between the protected and unprotected often appear to vanish. It is under these epidemic influences that men and women have several successive attacks of smallpox, one attack not furnishing immunity against another. These cases are rare, but they do occur and are sufficiently suggestive. I have seen a physician in a severe variolous epidemic suffer from an attack of ophthalmia whenever he was introduced into the chamber of

a sufferer. At these times the unprotected, in whose persons at other seasons it is difficult to insure vaccination, receive the virus with relative ease and with excellent results. Hence, if in a meager proportion the vaccinated suffer at the present time, it is not an argument against the prevalence of smallpox, it is rather a strong proof in favor of the prevalence of a smallpox epidemic, even if the symptoms displayed in the most of cases are mild or modified.

The same explanation is to be made in the cases where it is alleged vaccination has been successfully performed of patients convalescing from this modified smallpox. A few instances of this exception to the rule have been adduced as triumphant demonstrations of the fact that no smallpox had previously existed. But such alleged proof is absolutely valueless and not in the slightest degree subversive of the established diagnosis. The facts are all explicable by the prevalence of the epidemic influence in smallpox, and point conclusively to the presence of such a disease and to none other. I have with qualified success vaccinated after modified variola; there is no reason why one or even a series of patients might not exhibit some vaccination-symptoms after suffering from smallpox in an epidemic form. It is to be remembered that a much severer test is made of the capacity of the patient when a virus is brought into actual contact with his body-fluids (as in vaccination) than when he is simply exposed through the medium of the atmosphere to the volatile contagion of a disease transmissible in that way. What physician would dare, after the most successful vaccination of a patient at multiple points, to scarify the arm of that patient, and to attempt thus to introduce the virus of smallpox? He would be held criminally liable for the result, and that result in the time of a variolous epidemic might be the transmission of smallpox to the person subjected to the experiment. The same is true of vaccination after modified variola when an epidemic is in progress. Brouardel has reported two consecutive attacks of smallpox in one patient, and in a blood relative of the same person six successful vaccinations at intervals of about six months. To sum up, then: In seasons of epidemic influence smallpox may occur several times in the same person; smallpox may occur in severe types in persons vaccinated; vaccinated persons may be revaccinated effectively at brief intervals, and vaccination may be followed by some results in persons convalescent from smallpox.

These facts being granted, it is nevertheless true that the immunity secured by vaccination is incalculably great, and it may be well doubted if really typical results can be secured by the vaccination of persons convalescent from the disease now prevalent. It will be remembered that when referring to my vaccinations after modified variola, I did not say that *typical* results had been produced. An expert's description of the typical results of vaccination would probably differ widely from

that of the inexperienced. Personally, I should view with great suspicion any report of typical results (scar foveation, areola, vaccinal fever, etc.) occurring after vaccination of the victims of the prevalent epidemic.

Vaccination after the onset of smallpox, and when practiced in the early stages of that disease, is commonly effective, and if not protective in the way of aborting the disease, has a high value in modifying its severity. Even as recently as the current year, Kotowtschikoff* has discovered that in the suppurative stages of smallpox successes may be secured by vaccinating as often as twice in the day; and he has advocated this as a means of favorably influencing the course of the disease. But vaccination during the period of convalescence from smallpox, whether the latter be modified or unmodified, is typically successful only as a matter of very great rarity. The symptoms usually evoked by such attempts at vaccination are either the production of spurious and abortive pocks, or, what is more common, the production of vesicles and pustules wholly unconnected with the vaccinal process.† It is an established fact that after the occurrence of smallpox the skin is left in a very sensitive, morbid state. It is the frequent seat of pustules, abscesses, carbuncles, and other pus-containing symptoms of the surface, and these are specially apt to be provoked where the needle of the vaccinator has been employed.

Turning now to the diagnoses erroneously made of the disease under discussion, many of its victims have been reported to suffer from chickenpox (varicella). An error here can scarcely be made by a conscientious and careful observer. Let it be thoroughly understood at the outset that a patient affected with modified smallpox may have milder symptoms than another suffering from chickenpox. The differences between these wholly distinct affections are not exclusively those of severity. We have seen that a man with modified smallpox may exhibit perhaps but two pocks on his body, and even may be able to attend to his regular duties. While chickenpox is universally and justly recognized as a very much milder disease than smallpox, a child affected with a severe form of varicella may really be very uncomfortable for two days with the body extensively covered with the special symptoms of that disease. A man with a lion's cub for a pet would not dream of rating it below a fully grown German boar-hound because the cub was the smaller of the two beasts. He would know that in time the lion will be able to slay the big dog with a single blow of its powerful paw. This is quite suggestive of the difference between what might be called figuratively

* Jour. of the Amer. Med. Ass'n, Dec. 23, 1899.

† "Smallpox undoubtedly exhausts the susceptibility to the vaccine disease. There is, however, considerable virus in use at the present time which is sure to cause a sore arm even in immune persons. In testing the immunity of individuals who are thought to have had smallpox, it is important, in performing vaccination for this purpose, to be sure that the disease which follows is genuine vaccinia."—WILLIAM M. WELCH, to the Illinois State Board of Health.

aby-smallpox" and chickenpox. The former may extend and develop til it is competent to destroy human life at the rate of the most fear- l scourges of the human race. But no degree of development or tension can ever convert chickenpox into anything more than a trivial fection.

Chickenpox* (varicella) is ushered in, as a rule, by no pains in the ins, nor by nausea or vomiting, nor by a high range of bodily tempera- ure for two or three days preceding the rash. At the most, there are ut a few hours of mild fever in which the thermometer practically ever rises as high as 105° F., and the eruptive symptoms speedily ppear, first as slightly reddened blotches scarcely larger than half a pea upon the surface, which rapidly become exceedingly superficial "watery heads" (vesicles) without the previous occurrence, at the site of each, of elevated, firm, shot-like masses in the skin underlying each point. A feature of distinguishing importance in this malady is the rapid occurrence of the eruption over the protected rather than, as in smallpox, over the unprotected surface of the body, and in successive crops, the patient at the moment of first examination, for example, exhibiting large numbers of blister-like "watery heads" (vesicles) over the back or on the chest, with a relatively smaller number on the face. At the height of the process a finger-nail can practically erase most of the evidences of trouble at any affected point. The velvety elevations are never puckered on the roof-wall of the single chamber containing the clear or opalescent fluid (serum); the crusts which form subsequently are thin and friable; the vesicles never develop into unmistakable pustules; at the worst, in from two to four days, the eruption and the disease are practically at an end. From first to last there is no suggestion of the career of even the most modified smallpox in the symptoms here enumerated. The mild fever persists during the eruptive stage, and at the outset of such a stage does not vanish or diminish, as in smallpox. Second attacks are rare; one attack confers no immunity from smallpox. Here the vaccinated and the unvaccinated suffer alike. Hence, it follows that any patient exhibiting vesicles surmounting firm elevations of the surface of the skin, developing first on the exposed surfaces of the body, appearing on the third day after a high fever, with lumbar pain and nausea, and coinciding with marked fall of the febrile temperature, is almost certainly smitten with smallpox and not with chickenpox.

One might almost wish that the late Tilbury Fox had never introduced his "impetigo contagiosa" to the notice of the profession, seeing that in connection with smallpox more sins of diagnosis may be laid to its door than in the case of any other disease in the nomenclature. A

* "Varicella is essentially a disease of early life, occurring almost exclusively in infants and young children."—JAMES NEVINS HYDE, in Pepper's System of Medicine.

few considerations, however, suffice to stamp its individuality. The "watery heads" (vesicles) which appear with relative suddenness in this disorder and which are not only superficial but which enlarge by lateral rather than by deep extension, are absolutely the result of infection with pus-organisms at every point where the symptoms develop. With this simple fact in view all errors of diagnosis may be avoided. Impetigo contagiosa is for the most part what may be termed a "finger-nail filth" disease of early life, chiefly of children or of young adults. The finger-nails, charged with the effective elements of the disease, convey these sparsely, not plentifully, to accessible portions of the body, the face (lips, nose, ears, cheeks), the hands, the knees, etc. The later "stuck-on," friable, readily removed, superficially attached crusts, never implanted on a firm base, are justly regarded as characteristic. In our clinical experience it is rare that more than a score of these individual symptoms may be counted in any single person. Our English brethren report cases in which the disease is widely generalized; I have rarely, very rarely, so seen it. When fever co-exists, as reported, it is unquestionably the result of the irritation produced in the skin by the purulent germs. No patient displaying numerous pustules symmetrically developed and seated on a firm base, after the subsidence of high fever, is suffering from any form of impetigo.

The distinction between a patient suffering from a generalized eruption of the pustules of syphilis and another exhibiting the pustules of smallpox, is chiefly interesting as an academic study, inasmuch as not rarely, in the great St. Louis Hospital of Paris, and occasionally at my own clinic, patients are found standing in the line of applicants for relief, one showing smallpox pustules, and another next or near exhibiting the pustular symptoms of syphilis. Both, it may be observed, may have a slight rise in temperature.

But it is to be remembered that the generalized pustular rash of syphilis is really rare in America, seeing that the eruption finds amplest expression only in the persons of the extremely filthy, the victims of debauchery, drink, and poverty. It is almost never recognized among the well-to-do, the cleanly, the comfortably housed, and the warmly clad; however, often these latter may suffer from other symptoms of the disease. Of course, in any doubtful case, the history of syphilitic infection and the presence of other manifestations of the malady (mucous patches, alopecia, enlarged glands, traces of initial chancre) point to the truth. In syphilis the much slower evolution of the symptoms (time is a valuable aid to the physician in the diagnosis of smallpox), the obvious tendency of the pustules to cluster about the sides of the nose, about the cleft of the anus, about the ears, and near the line of the hairs at the brow, the peculiarly dirty looking crusts which form at the apex of the semi-solid elevations of the surface, the failure of such distinct

isolation of the individual pustules as occurs in all but confluent variola, are important diagnostic features. The patient with pustules of smallpox generally distributed over his body is usually found in bed. The syphilitic subject commonly makes shift to present himself at the out-patient department of a dispensary or hospital; in other words, the one readily, the other only with difficulty, tolerates his disease.

In view of thoroughly characteristic features of even modified variola, it is almost superfluous to consider in detail the differences between its symptoms and those of eczema, acne, herpes, pemphigus, and the medicinal rashes. None of these is suddenly displayed after three days of fever and a rapid decline of temperature, in symmetrical development, attacking first the exposed surfaces of the body. The simple form of herpes is generally seen clustered about the orifices of the body; the "shingles" variety (herpes zoster) is well-nigh invariably unilateral in disposition. Acne in pustular development affects the face, it is true, but is wholly unaccompanied by fever, and in its manifestation far outlasts all the symptoms of smallpox. The doubtful physician here, as so often when attempting to distinguish between similar affections, is aided by the passage of time. Pemphigus, in its manifold expressions, is not only a disorder, the skin-symptoms of which outlast, as a rule, the brief career of the eruptive features of smallpox, but it is one in which the blister-like elevations of the surface (blebs, bullæ) are, as a rule, larger, and are filled with a fluid undergoing less rapidly than in smallpox the change to pure pus. With respect to the medicinal rashes, some of which, without question, are liable to be mistaken for the symptoms of smallpox, it is to be remembered that the withdrawal of the offending medicament is always followed by immediate amelioration of the symptoms in the skin. As in the other cases, the absence of fever and of a history of fever is to be considered in connection with the fact that very rarely indeed, if ever, do these rashes undergo changes consecutively from one type of eruption to another, firm elevations of the skin-surface, for example, changing to those exhibiting "watery heads" (vesicles) at the apex of the elevation; and these latter in turn changing to well-developed pustules. For the most part, the medicinal rashes develop in a single type, blushes, pustules, etc., appearing as such with promptness and not changing until the withdrawal of the efficient cause of the malady.

The severe and generally intolerable itching that distinguishes eczema need never be confounded with the excessive burning pain experienced by patients with a smallpox eruption over the face. A simple diagnostic difference will here suffice for the inexpert. There is almost never scratching of the affected part in smallpox, but that is a rare form of eczema in which at one time or another there is not only scratching, but also unmistakable evidence of scratching in the torn and abraided integuments.

It seems scarcely necessary in this connection to call attention to the fact that even the mildest epidemic of smallpox may, under special circumstances, give rise to the most malignant cases of the disease. It has been already shown that the mitigation of the malady has been largely produced by the universal vaccination and revaccination of generations of the American people. Still it should not be forgotten that all the aggravating factors in the production of an epidemic are not yet wholly revealed to us. It has been supposed that certain climatic conditions have exerted some influence in one direction or the other. This, at least, is certain, that the introduction of even a single case of mitigated smallpox in a community which has been unvaccinated, has been again and again the fruitful source of one of the most fearful scourges that has ever afflicted the human family. Who, for example, would dare to introduce one of the victims of the present mild epidemic into such a community as that, for instance, furnished by the unvaccinated natives of Samoa? The consequences would certainly prove more formidable than if they had been subjected to a rain of the explosive missiles which have been forbidden lately by the Peace Conference at The Hague. It follows that only the most skillful and energetic measures should be taken to prevent the spread of the present epidemic, even in its mild form, as no living man can predict what type it may assume on the morrow or the following week.

Under date of December 7, 1899, the Surgeon-General of the U. S. Marine Hospital Service writes to the Illinois State Board of Health, as follows: "I am aware of no disease called Cuban itch which could be mistaken for smallpox. There are several erythematous eruptions in Cuba called Cuban itch, but they are prickly heat or ringworm."

The conclusions which one is justified in drawing from the facts here set forth are as old as the days of Jenner and as imperative as in the year when the clear-sighted von Hebra wrote his chapters on smallpox so lucidly and emphatically that to-day they present a true picture as well of the virus as of its most efficient antidote: Vaccination and revaccination of everybody—child, adult, foreigner, native-born—there is no other safe reliance for the present and the future. By the methods known and found most effective in the care of the public health the epidemic must be stamped out and the disease at last completely eradicated. We may well doubt whether a smallpox epidemic, even of mild character, could prevail in any of the smaller communities in England and Germany, where vaccination is so generally and efficiently enforced. It is said that the modern tourist, if he could be transported to the streets of London in the last century, would be immensely astonished, not so much by the dress of the people, by the aspect of the shops, and by the odd-looking vehicles on the streets, as by the extraordinary number of pock-marked faces on every hand.

At last the English people have learned their lesson and learned it well. They have had a bitter experience of the devastation which smallpox is capable of working among their kindred, whether in the hovel or in the palace. They have mourned the loss of a gracious sovereign smitten with the pestilence on the very throne of the kingdom. While we may not wish to follow them in all matters, they have set us a worthy example in the methods by which they have buttressed their bulwarks of immunity. The germs of this pestilence are powerless against the army of their humble villagers and peasantry, ranks upon ranks of whom bear on the arms of each no fewer than four and often as many as six and eight scars of effective vaccination. Vaccination should be the sole passport of entrance to the public schools, to the voters' booth, to the box of the juryman, and to every position of duty, privilege, or honor granted either by the State or by the Nation.

I am, with great respect, your obedient servant,

JAMES NEVINS HYDE.

CHICAGO, December 22, 1899.

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